

REMARKS

The Office Action of December 19, 2006, has been carefully considered.

A number of objections have been raised to the specification.

In the table on Page 6, it has been noted that the last line is partially cut off. In comparing the table on page 6 to the table in the original in the PCT application, a number of missing entries were noted. A replacement for page 6 is attached hereto in which all of the values in the original table are thought to correctly appear.

The table on page 2 of the specification has been corrected so that the value of Me(II)O is consistent with the value on page 22.

With regard to Claim 28, this claim has been amended so that it relates specifically to the filling and grinding step 8 on page 10 of the specification. Claim 24 has been amended to provide antecedent basis for this step.

The specification has been objected to as failing to provide antecedent basis for the claim subject matter of Claims 23 and 31. The specification has been amended on page 8 to provide antecedent basis for Claim 23, and Claim 31 has been amended to recite the supported broad range for thermal coefficient.

Claim 21 has been amended to add a period to the end of the claim.

In Claim 32, the reference to adjustments of amounts of certain components has been deleted.

Claim 24 has been rejected under 35 USC 112, second paragraph, as being indefinite, and Claim 24 has been amended

to recite that the amount of calcium oxide is from 1 to <4% by weight.

Withdrawal of this rejection is requested.

Claims 19, 20, 22 and 23 have been rejected under 35 USC 103(a) over U.S. Patent No. 6,120,591 to Brodtkin et al.

The Office action alleges that product claims with numerical ranges which overlap prior art ranges can be held to be obvious over 35 USC 103, and further alleges that "the fact that the taught glass includes fluorine does not overcome the rejection since applicants have defined the claimed glass-ceramic using the open terminology "comprising...." It is noted initially that *Claim 19 defines the glass-ceramic composition as "consisting essentially of";* see line 5 of Claim 19. Moreover, the claim has now been amended to recite that the aluminum oxide content is between >13% and 17%, and this range consequently does not overlap with the range of Brodtkin et al. As the lower limit was previously 13%, and all values disclosed in the specification are greater than 13%, Applicant submits that the claimed value is entirely consistent with the present specification and does not constitute new matter.

Moreover, as the term "consisting essentially of" is used, and all recited components of the glass-ceramic are oxides, fluorine is indeed excluded from the composition.

Withdrawal of this rejection is accordingly requested.

Claims 19, 20 and 22 through 32 have been rejected under 35 USC 103(a) over U.S. Patent No. 6,200,137 to Holand et al or U.S. Patent No. 6,280,863 to Frank et al.

Both of these references clearly disclose glass-ceramic compositions containing fluorine. For example, Holand et al at column 2, lines 31-34 states that the apatite glass ceramic

according to the invention contains CaO, P₂O₅, and F. In Frank et al, a table of components is found in column 2, lines 35-43, and fluorine is present in an amount of 0.1 to 2.5%.

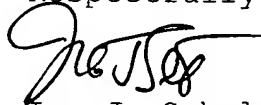
Moreover, Holand et al and Frank et al both teach that titanium dioxide and zirconium oxide are acceptable components of the composition, whereas the claimed invention specifically excludes titanium dioxide and zirconium oxide.

As the claimed invention excludes components which are either necessary (fluorine) or optional (titanium dioxide/zirconium oxide) in Holand et al and Frank et al, the claimed invention is not obvious over these references and withdrawal of this rejection is requested.

The allowability of Claim 21 over the art of record has been noted.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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